

App. No. 09/843,901
Amendment Dated August 12, 2005
Reply to Office Action of June 28, 2005

Listing of claims:

1. (Currently amended) A computer-implemented method for maintaining configuration information on a mobile device, comprising:
 - receiving a message including a request associated with configuration information stored on the mobile device;
 - identifying the source of the received message from data associated with the received message;
 - associating a security role with the received message based on the identified source of the received message;
 - inserting an identifier into the received message to identify the associated security role;
 - determining at least one configuration setting within the configuration information affected by the received message;
 - comparing the associated security role of the received message with a security privilege associated with the at least one configuration setting on the mobile device; and
 - if the associated security role of the received message is in agreement with the security privilege associated with the at least one configuration setting on the mobile device, processing the request associated with the configuration information.
2. (Original) The computer-implemented method of claim 1, wherein associating the security role with the received message comprises assigning a particular security role based on a source of the message.
3. (Previously presented) The computer-implemented method of claim 1, wherein the source of the message is identified from authentication and decryption of the received message.
4. (Previously presented) The computer-implemented method of claim 1, wherein the information within the message includes a shared key that identifies the source of the message.

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5. (Original) The computer-implemented method of claim 1, wherein processing the request associated with the configuration information further comprises comparing the security role with another security privilege associated with a configuration service provider, the configuration service provider being responsible for managing the configuration information stored on the mobile device.

6. (Original) The computer-implemented method of claim 5, wherein if the security role is not in agreement with the other security privilege, the request is not processed.

7. (Original) The computer-implemented method of claim 5, wherein if the security role is in agreement with the security privilege associated with the at least one configuration setting and with the other security privilege associated with the configuration service provider, the configuration service provider processes the request by accessing the configuration information.

8. (Currently amended) A computer-readable medium having computer-executable components for managing security on a mobile device, comprising:

a stored setting having an assigned security role that identifies a privilege that an entity attempting to access the stored setting must satisfy in order to access the stored setting;

a router configured to receive a configuration message over a wireless communication link, the router being further configured to identify a source of the configuration message and ~~assign~~ insert a security role identifier ~~into~~ to the received configuration message based on the identified source, the router being further configured to pass the configuration message to other components of the mobile device, the configuration message including an instruction that affects a configuration setting; and

a configuration manager configured to receive the configuration message from the router and to parse the configuration message to identify the configuration setting affected by the configuration message, the configuration manager being further configured to compare the assigned security role of the configuration message to security roles assigned to configuration settings stored on the mobile device,

wherein if the configuration setting identified in the configuration message identifies the stored setting, and wherein if the assigned security role has sufficient privilege to access the

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stored setting, the configuration manager causes the instruction that affects the configuration setting to be processed.

9. (Original) The computer-readable medium of claim 8, further comprising a configuration service provider configured to manage at least one configuration setting stored on the mobile device, and wherein the processing of the instruction is performed by the configuration service provider.

10. (Original) The computer-readable medium of claim 9, wherein the configuration service provider has an assigned security role that identifies a privilege that must be associated with an instruction that affects a configuration setting which the configuration service provider maintains.

11. (Original) The computer-readable medium of claim 10, wherein the configuration manager is further configured to determine if the instruction that affects the configuration setting is in agreement with the security role assigned to the configuration service provider that maintains the affected configuration setting, and if so, the configuration manager is further configured to pass the instruction to the configuration service provider to be handled.

12. (Original) The computer-readable medium of claim 11, wherein the configuration service provider determines if the instruction is in agreement with the security role assigned to the stored setting prior to processing the instruction, and if not, terminating the processing of the instruction.

13. (Currently amended) A computer-readable medium having computer-executable instructions for maintaining configuration information on a mobile device, comprising:

receiving a configuration message including a header and an instruction associated with a configuration setting stored on the mobile device;

identifying the source of the received message from the header of the received configuration message ~~data associated with the received message;~~

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associating a security role with the instruction based on the source of the received message, wherein the associated security role is associated to the instruction by a tag included in the message;

comparing the security role of the instruction with a security role associated with the configuration setting stored on the mobile device; and

if the security role of the instruction is in agreement with the security role of the configuration setting, processing the instruction.

14. (Previously presented) The computer-readable medium of claim 13, wherein associating the security role with the instruction comprises assigning a particular security role based on a source of the configuration message.

15. (Previously presented) The computer-readable medium of claim 13, wherein the source of the message is identified from authentication and decryption of the received message.

16. (Previously presented) The computer-readable medium of claim 13, wherein the information within the configuration message includes a shared key that identifies the source of the configuration message.

17. (Previously presented) The computer-readable medium of claim 13, wherein processing the instruction comprises comparing the security role of the instruction with another security role associated with a configuration service provider, the configuration service provider being responsible for queries of and changes to the configuration setting.

18. (Previously presented) The computer-readable medium of claim 17, wherein if the security role of the instruction is not in agreement with the security role of the configuration service provider, the instruction is not processed.

19. (Previously presented) The computer-readable medium of claim 18, wherein if the security role of the instruction is in agreement with the security role of the configuration setting

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and with the security role of the configuration service provider, the configuration service provider processes the instruction.

20. (Currently amended) A computer-readable medium within a mobile device, comprising:

a data structure associated with a configuration setting and a configuration service provider, the configuration setting being associated with a software component resident on the mobile device, the configuration service provider being responsible for maintaining the configuration setting, wherein the data structure comprises:

a first field including a security role associated with the configuration setting, the security role of the configuration setting identifying a setting privilege which must be had in order to access the configuration setting;

a second field including a security role identifier, wherein the security role identifier is configured for association with a configuration message; identifying an associated configuration service provider, the identity indicating an associated configuration service provider requesting information stored on the mobile device; and

a third field including a security role associated with the configuration service provider, wherein correlating a security role based on the identity of the associated configuration service provider, the security role of the configuration service provider identifies identifying a provider privilege which must be had in order to make use of the configuration service provider, and wherein the third field is configured to determine when the security role identifier matches the security role of the configuration service provider.

21. (Previously presented) The computer-readable medium of claim 20, further comprising a configuration message received over a wireless communication link between a source of the configuration message and the mobile device, the configuration message including

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an instruction to access the configuration setting, the instruction having an associated security role based on the source of the configuration message.

22. (Original) The computer-readable medium of claim 21, further comprising a configuration manager configured to cause the instruction to be processed if the security role of the instruction is in agreement with the security role of the configuration setting.

23. (Original) The computer-readable medium of claim 21, further comprising a configuration manager configured to cause the instruction to be processed if the security role of the instruction is in agreement with the security role of the configuration service provider.

24. (Original) The computer-readable medium of claim 21, further comprising a configuration manager configured to invoke the configuration service provider if the security role of the instruction is in agreement with the security role of the configuration service provider, the configuration service provider being further configured to process the instruction if the security role of the instruction is in agreement with the security role of the configuration setting.

25. (Original) The computer-readable medium of claim 20, wherein the first field further comprises a policy field that identifies the configuration setting as a policy setting.

26. (Original) The computer-readable medium of claim 25, wherein the policy setting can only be modified by an instruction generated by a particular source.

27. (Original) The computer-readable medium of claim 26, wherein the particular source includes administrative privileges.

28. (Original) The computer-readable medium of claim 25, wherein the policy setting may only be modified locally.